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DR. EMMET B. BAY, Chicago, *Editor*

DR. WRIGHT R. ADAMS, Chicago, *Associate Editor*

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THE TREATMENT OF CARDIAC PATIENTS ON A HOME CARE PROGRAM

The Montefiore Hospital Home Care Program has afforded medical care to over 400 chronically ill patients in its first three years of operation. It has demonstrated that many individuals can be cared for at home without compromising the highest standards of hospital medical practice, and thus led to a re-evaluation of the concept of a hospital patient. The program has also shown that there are many semi- or non-ambulatory patients who are not so sick as to need urgent hospitalization but who deteriorate at an unnecessarily rapid rate in the absence of more elaborate facilities than are available to the private physician making a house call. The success of our program has led to the development of similar ones throughout the country, and strengthened our belief that Home Care will eventually be regarded as a sphere of medical activity equal in importance to the out-patient department and the hospital itself.

On our program the problems that arise in maintaining a patient at home are met by the teamwork of individuals specialized in handling various phases of the total life situation. These include (1) the physician, who visits on a scheduled basis, usually once or twice a week, but as often as daily when the need arises. A physician is available at any hour for emergencies. Although the patient is usually known to all the physicians on the program, one will make most if not all the routine visits, and is therefore charged with the primary responsibility to the patient. The attending physician can send into the home qualified specialists for consultation and care; on appropriate occasions orthopedists, dermatologists, psychiatrists, urologists, dentists, etc., have contributed actively to the treatment. Weekly "rounds," similar to those in a hospital, are made on selected patients by highly trained consultants; in the case of the neoplastic patients by an oncologist, in the case of the cardiac by a cardiologist. (2) The medical social worker determines the fitness of the home in terms of the psychological interrelations existing within the family, and the financial and other problems that may result from the patient's return home. No patient goes on the program unless a reasonable amount of acceptance and cooperation can be expected from the family. Maintaining the patient at home may require drawing on the community's social resources, particularly the welfare agencies; in certain instances the program itself subsidizes the cost of housekeeping when this is not excessive. (3) Nursing service is supplied under a contract with the Visiting Nurse Service of New York. Nurses visit as many times a week as ordered, teach necessary nursing procedures, administer medications as directed, and assist in such procedures as blood transfusions. The nurse's notes, which may be sealed in an envelope at her discretion, are left in the home for the physician's inspection. (4) A full-time occupational therapist instructs the patient at home in various arts and crafts, the equipment for which is supplied by the program. (5) Physical therapy is provided by a skilled physiotherapist working under the supervision of a physician trained in physical medicine.

The relation between the hospital and the patient at home is a flexible and dynamic one. The hospital's physical equipment such as beds, oxygen, scales, wheelchairs, etc., is freely supplied. Blood for transfusions given at home comes from the hospital's bank. Equipment for such procedures as thora-and paracenteses comes from the hospital supply room. Blood or other specimens drawn at home are analyzed and reported through the hospital laboratories, and prescriptions written in the home are filled at the hospital pharmacy. A clinical note of the findings and therapy for each home call is entered in the patient's chart which is on file in the hospital Home Care Department. Patients of unusual interest from the point of view of follow-up, diagnosis or therapy are brought to the hospital for clinical conferences. In addition, physicians, social service workers, and a liaison nurse from the Visiting Nurse Service hold weekly meetings at which the medical, social and other problems that may arise

on Home Care are discussed. It can be seen that the Home Care patient is essentially on the hospital roster except for his extramural location.

Under the terms of the grants made to the Home Care Program, the majority of the patients have been those with neoplastic diseases. Some 40 patients have been primarily cardiac problems. There were 1,875 calls made and 9,042 days of patient care given at home to this group. Almost all of them had chronic congestive failure. Two of the patients had active rheumatic fever, despite months of hospitalization, at the time they were accepted for Home Care. After appropriate arrangements were made to insure continuation of the bedrest regime, the patients were followed at home, rheumatic activity being evaluated by clinical criteria and sedimentation rates, the latter often performed at the bedside. Both of the patients were eventually discharged to the out-patient department. It may be noted here that during the past year a separate Rheumatic Fever Home Care Program for children has been in operation at Montefiore. A description of the successful operation of this program is forthcoming in a separate communication.

The medical treatment of chronic congestive failure in the home is discussed in the March 1949 issue by Bay. The mainstays of treatment are (a) salt-poor diet. Both the patient and family are thoroughly indoctrinated in this by the hospital nutritionist and the attending physician, and a bulletin listing the "do's" and "don'ts" of the diet is supplied. Most of our patients are in such precarious cardiac status that the improvement they register on the rigid ward diet is an object lesson that they gladly follow at home. (b) Mercurials are injected as needed, usually on a schedule by the attending physician or visiting nurse. With the advent of Thiomerin it has become possible to teach a member of the family in the technique of subcutaneous administration, thereby lessening the demands on professional attention. (c) Digitalis glycosides are taken in appropriate dosage as determined by the physician, our current choice being Digoxin. (d) Bedside oxygen is available to patients subject to recurrent pulmonary edema, or whose failure is so advanced that frequent oxygen inhalation is helpful. (e) Chest and abdominal taps have been repeatedly performed at home without incident.

The treatment of cardiac emergencies in the home is anticipated and provided for. Patients subject to paroxysmal nocturnal dyspnea have, in addition to oxygen, aminophyllin (0.5 gm.) with morphine (0.016 gm.) suppositories which they have been taught to use at the onset of an attack. There may be very little more for the physician to do when he arrives on emergency call. One of our patients has had recurrent episodes of acute pulmonary edema superimposed on chronic intractable failure, one or two times per week for many months; with the measures noted above plus the further administration of a mercurial or aminophyllin by the physician, he has been enabled to remain at home.

The other most common emergency is a fresh episode of myocardial infarction. Although these can be cared for at home, in most cases the patient is returned to the hospital. We have done this largely because unexpected and sudden complications of infarction (such as ventricular tachycardia or pulmonary emboli) can be more promptly and satisfactorily treated in the institution. Such patients were removed to the hospital by ambulance furnished by the department.

Since the significant interpersonal relationships of the patient exist in the home and not in the hospital, factors in the disease which may be unknown to the ward physician may be strikingly apparent in the home. For example, one patient with rheumatic heart disease had increasingly numerous and life-threatening episodes of tachycardia with pulmonary edema; these required long hospitalizations several times a year. Her initial attacks were treated at home with ouabain and mercurials since she had quinidine intolerance. It was noted that some of the attacks occurred in a context of frustration and hostility towards her husband and son. As a result of the joint efforts of a psychiatrist and a psychiatrically oriented internist and social worker, there has been a striking decrease in the number and severity of attacks. Cases of this sort have been of immense value in emphasizing the interrelation of the patient's personality and his disease and indicate one of the teaching values of this program.

One of the greatest satisfactions to the Home Care physicians has been the appreciation of the chronically hospitalized patient removed from the depressing and listless ward atmosphere to the warmth and significant values of his home. Much of the favorable comment which the program has received has been couched in economic terms (approximately $3 a day to maintain the patient at home as against $10 or more for hospital maintenance). To us the major contribution of the program has been the psychologic and humanitarian benefits to the chronically ill patient restored to his family.

I. Rossman, M.D., Saul D. Eger, M.D., and Martin Cherkasky, M.D.
Division of Social Medicine,
Montefiore Hospital, N. Y.

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